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10/681,253	10/09/2003	Kazumasa Fukazawa	KL-US050678	7520

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/681,253	**Applicant(s)** FUKAZAWA ET AL.
	Examiner JAMIE L. MCGOWAN	**Art Unit** 3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 October 2009_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _19-26,29,30,32-35 and 37-48_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _19-26,29,30,32-35 and 37-48_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _10/26/09 and 1/28/2010_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The affidavits under 37 CFR 1.132 filed 2/24/09 is insufficient to overcome the rejection of claims 19-26, 29-35 and 37-43 based upon Applicant's Prior Art shown in Figure 1 in view of Pack (6,793,028) and also Yoshida (JP-51-063032) in view of Applicant's Prior Art shown in Figure 1 as set forth in the last Office action because: Long-felt need must not have been satisfied by another before the invention by applicant (Newell Companies v. Kenney Mfg. Co., 864 F.2d 757, 768, 9 USPQ2d 1417, 1426 (Fed. Cir. 1988)). In this case, both the Pack reference and the Yoshida reference disclose moving the radiator on a work vehicle to the rear of the vehicle thereby allowing the front hood of the vehicle to be slanted down for increased visibility. Both the Pack reference and the Yoshida reference solved the problem in work vehicle visibility and did so in the same manner as applicant's current invention. The fact that these solutions may or may not have been marketed may be due to factors such as lack of interest or lack of appreciation of an invention's potential or marketability rather than want of technical know-how (Scully Signal Co. v. Electronics Corp. of America, 570 F.2d 355, 196 USPQ 657 (1st. Cir. 1977)). In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 19-21, 23-26, 29, 30, 32-35 and 37-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior art shown in Figure 1 in view of Pack (6,793,028) and Akashima et al. (D483,043).

While the prior art discloses a bulldozer with tracks and most of the features of claims 19, 35, and 44, it fails to disclose a sloped front engine covering, and a radiator placed at the rear of the cab. Like the prior art, Pack also discloses a work vehicle. Unlike the prior art, Pack discloses that it is known in the art to reposition the radiator from under the front engine cover to behind the cab to allow for better forward viewing. Pack teaches that by moving the radiator the front engine cover can be reduced and slanted downward to improve visibility for the operator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to move the radiator of the prior art and reduce the engine covering as taught by Pack to provide better visuals for the operator. In such a combination, the cab would have to be shifted forward to account for an imbalance that would be created from placing the cooling module behind the cab. By shifting the cab forward, a cooling module recess is formed between the tracks for placement of the cooling module so that that rearmost end of the cooling module does not extend beyond the rear end of the tracks.

While the combination of the prior art and Pack discloses the invention as described above, it fails to disclose that there are tanks on either side of the rearward radiator. Like the combination of the prior art and Pack, Akashima et al. discloses a tank on either side of a work vehicle extending rearwardly behind the operator station (Figure 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the rearwardly extending tanks of Akashima et al. in the combination of the prior art and Pack as it is known in the art that tanks can be positioned in various places on a work vehicle.

Regarding claims 20 and 41, the prior art discloses that the bulldozer includes a roof coupled to the vehicle frame and vertically disposed directly above the operator seat.

Regarding claims 21 and 43, the combination discloses that the vehicle further comprises a cab (34) for an operator secured to the middle of the frame behind the engine cover and surrounding the operator seat, such that the operator seat and an eye point are located in the cab in which the top center portion of the bulldozer blade is visible from the eye point over the top sloped surface.

Regarding claims 23 and 45, the combination discloses that the cooling module includes a radiator and a fan (30) for moving air through the radiator (Pack col. 2 lines 52-53) and the cooling module is mounted behind the cab such that a plane of the fan slopes downward towards the rear of the bulldozer making an upper end of a rear side of the cooling module positioned forward with respect to a lower end of the rear side of the cooling module(see sloped element 24 of Pack in Figure 1).

Regarding claim 24, the prior art discloses that the tracks are part of track frame modules that are attached to the vehicle frame.

Regarding claim 25, the combination discloses that the tank modules extend rearwardly from the operator's seat (Akashima – Figure 5). As applicant fails to disclose any specific benefits to having the tanks extend farther than the cooling module, it appears to be a matter of obvious design choice that the tanks could extend behind the cab to whatever distance is desired. The combination also discloses that the upper end of the cooling module could be recessed forwardly from the rear end of the tanks so that a rearward line of sight can be formed from the eye point to the ground.

Regarding claims 26 and 40, the combination discloses that one tank holds engine fuel and the second tank is capable of holding hydraulic fluid.

Regarding claims 29 and 30, the combination discloses that the cooling module is capable of being completely recessed forwardly from the rear ends of the first and second tanks.

Regarding claims 32 and 37, the combination discloses that the front mounted engine is disposed at least partially above an uppermost edge of the tracks.

Regarding claims 33, 38 and 39, the combination discloses that the cooling module is capable of being completely recessed forwardly from the rear ends of the first tank and second tanks.

Regarding claim 34, the prior art discloses that the engine cover is generally closed.

Regarding claim 46, the combination discloses an operator cab surrounding the operator seat, the operator cab being disposed between the first and second tank modules and behind the engine cover, the operator cab having an entrance on the side forward of the tanks, the tanks disposed rearward of a rear surface of the operator cab and the cooling module being disposed rearward of the operator cab.

Regarding claim 47, the combination discloses that the operator's cab has a rear window on the rear surface of the cab with the bottom end of the window arranged above a top end of the cooling module (Applicant's prior art Figure 1).

Regarding claim 48, the combination discloses that the cooling module is mounted in the cooling module recess so tat a rear side of the cooling module is exposed.

4. Claims 22 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior art shown in Figure 1 in view of Pack (6,793,028) and Akashima et al. (D483,043) and further in view of Sheidler et al. (6,468,153).

While the combination of Applicant's Prior art shown in Figure 1 in view of Pack and Akashima discloses the invention as described above, it fails to specifically disclose that the cooling module include a charged air cooling unit, an oil cooling unit, a water cooling unit and a fan. Like the combination, Sheidler et al. also discloses a cooling module for a work vehicle. Unlike the combination Sheidler et al. specifically discloses that cooling modules are known to have charged air cooling units, oil cooling units, water cooling units and a fan for moving air through the radiator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the cooling module of Sheidler et al. in the work vehicle of the combination as it would have been a simple substitution of one known element for another to obtain predictable results as both types of cooling modules are well known in the art to be used on work vehicles.

5. Claims 19-21, 23-26, 29, 30, 32-35 and 37-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (JP-51-63032) in view of Applicant's admitted prior art and Akashima et al. (D483,043).

Regarding claim 19, Yoshida discloses a bulldozer comprising:

- A vehicle frame
- A pair of tracks
- A forwardly positioned operator seat secured to the vehicle frame
- A bulldozer blade (2) disposed in front of the front end of the vehicle frame
- A front mounted engine (5) disposed a at front portion of the vehicle frame
- An engine cover covering the front mounted engine (5) at the front portion of the vehicle frame, the engine cover being downwardly angled towards the blade (2) along a center axis of the bulldozer and aligned vertically above the front

mounted engine, the operator seat, the engine cover and the blade (2) being disposed such that when a lowest point of the blade and a lowest point of the tracks are on a horizontal plane, the top center of the blade is visible over a top sloped surface of the engine cover (Figure 1)

- A cooling module (8) fluidly coupled to the front mounted engine for cooling the front mounted engine, the cooling module being coupled to the rear end portion of the vehicle

While Yoshida discloses the invention as described above, it fails to disclose that the cab is shifted forward such that the cooling module is positioned forward of the rear end of the tracks. Like Yoshida, Applicant's admitted prior art discloses a bulldozer. Unlike Yoshida, Applicant's admitted prior art shows that the all of the elements of the bulldozer except for the blade components are contained such that they do not overhang the tracks. It would have been obvious to one of ordinary skill in the art at the time the invention was made to shift the cab forward so that the rearward positioned cooling module does not overhang the tracks thereby protecting it from damage during operation.

While Yoshida and Applicant's admitted prior art discloses the invention as described above, it fails to disclose that there are tanks on either side of the rearward radiator. Like the combination, Akashima et al. discloses a tank on either side of a work vehicle extending rearwardly behind the operator station (Figure 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the rearwardly extending tanks of Akashima et al. in Yoshida as it is known in the art that tanks can be positioned in various places on a work vehicle.

Regarding claims 20 and 41, Yoshida fails to disclose that the operator could be contained in a cab. Like Yoshida, applicant's admitted prior art discloses a bulldozer. Unlike Yoshida, Applicant's admitted prior art discloses an operator's cab. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an enclosed operator’s cab in Yoshida as taught by Applicant as it is old and well known in the art to provide enclosed operator's cabs on bulldozers to protect the operator from outside elements such as weather and debris.

Regarding claims 21 and 43, the combination discloses that the vehicle further comprises a cab for an operator secured to the middle of the frame behind the engine cover and surrounding the operator seat, such that the operator seat and an eye point are located in the cab in which the top center portion of the bulldozer blade is visible from the eye point over the top sloped surface.

Regarding claims 23 and 45, the combination discloses that the cooling module includes a radiator and a fan (8) (Yoshida – Figure 1) for moving air through the radiator and the cooling module is mounted behind the cab such that a plane of the fan slopes downward towards the rear of the bulldozer making an upper end of a rear side of the cooling module positioned forward with respect to a lower end of the rear side of the cooling module (see sloped element 7 of Yoshida in Figure 1).

Regarding claim 24, the combination discloses that the tracks are part of track frame modules that are attached to the vehicle frame.

Regarding claim 25, the combination discloses that the tank modules extend rearwardly from the operator's seat (Akashima – Figure 5). As applicant fails to disclose any specific benefits to having the tanks extend farther than the cooling module, it appears to be a matter of obvious design choice that the tanks could extend behind the cab to whatever distance is desired. The combination also discloses that the upper end of the cooling module could be recessed forwardly from the rear end of the tanks so that a rearward line of sight can be formed from the eye point to the ground.

Regarding claims 26 and 40, the combination discloses that one tank holds engine fuel and the second tank is capable of holding hydraulic fluid.

Regarding claims 29 and 30, the combination discloses that the cooling module is capable of being completely recessed forwardly from the rear ends of the first and second tanks.

Regarding claims 32 and 37, the combination discloses that the front mounted engine is disposed at least partially above an uppermost edge of the tracks.

Regarding claims 33, 38 and 39, the combination discloses that the cooling module is capable of being completely recessed forwardly from the rear ends of the first tank and second tanks.

Regarding claim 34, the prior art discloses that the engine cover is generally closed.

Regarding claim 46, the combination discloses an operator cab surrounding the operator seat, the operator cab being disposed between the first and second tank modules and behind the engine cover, the operator cab having an entrance on the side forward of the tanks, the tanks disposed rearward of a rear surface of the operator cab and the cooling module being disposed rearward of the operator cab.

Regarding claim 47, the combination discloses that the operator’s cab has a rear window on the rear surface of the cab with the bottom end of the window arranged above a top end of the cooling module (Applicant’s prior art Figure 1).

Regarding claim 48, the combination discloses that the cooling module is mounted in the cooling module recess so that a rear side of the cooling module is exposed.

6. Claims 22 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (JP-51-63032) in view of Applicant's Prior art shown in Figure 1 and Akashima et al. (D483,043) and further in view of Sheidler et al. (6,468,153).

While the combination of Yoshida, Applicant's Prior art shown in Figure 1 and Akashima discloses the invention as described above, it fails to specifically disclose that the cooling module include a charged air cooling unit, an oil cooling unit, a water cooling unit and a fan. Like the combination, Sheidler et al. also discloses a cooling module for a work vehicle. Unlike the combination Sheidler et al. specifically discloses that cooling modules are known to have charged air cooling units, oil cooling units, water cooling units and a fan for moving air through the radiator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the cooling module of Sheidler et al. in the work vehicle of the combination as it would have been a simple substitution of one known element for another to obtain predictable results as both types of cooling modules are well known in the art to be used on work vehicles.

Response to Arguments

7. Applicant's arguments filed 10/26/09 have been fully considered but they are not persuasive.

Applicant's argument that the teachings of the prior art (such as Yoshida - JP-51-063032) were unsuccessful because they were never marketed or put to practical use (that applicant knows of) is not persuasive. Perhaps, when the Yoshida invention was developed it was marketed but industry did not appreciate the invention for what it was at the time. Or, perhaps, Yoshida was not financially able to market the invention and therefore gave up on it. The fact is that both Yoshida and the present invention teach moving the radiator to the rear of the bulldozer so that the hood can be angled down for increased visibility. Whether the invention of Yoshida or anyone else was marketed or utilized does not change the fact that it was invented by another.

Applicant argues that the combination of the Figure 1 prior art and Pack would not produce the claimed invention. The examiner disagrees. The argument that moving the cab forward somehow constitutes an inventive concept is not persuasive. If one of ordinary skill in the art were to take the teaching of Pack and use it in the Figure 1 prior art to move the radiator behind the operator's cab, they would not simply tack it on to the machine. It would have been well within the skill of one of ordinary skill in the art to shift the cab forward and place the radiator behind the shifted cab assembly so that the footprint of the cab and engine compartment would remain the same. Further it is common knowledge that to get a view over on object, the closer you can be to that object, the easier it is to have a clear view. When you compare the Figure 1 prior art to applicant's Figure 2, if one were to take the radiator off the front of the bulldozer and place it on the rear an imbalance would be created. Shifting the cab forward to account for this imbalance would not be outside the skill of a vehicle engineer. Further, it would have been well within the skill of one of ordinary skill in the art to shift other elements around if needed to accommodate the new position of the cooling module. Therefore, in the combination of the Figure 1 prior art and Pack, the cab would be shifted forward creating a cooling module recess between the tracks thereby making room so that the cooling module does not extend out beyond the end of the tracks.

Further, applicant's Exhibits 1 and 2 submitted on 2/24/09 and the submission of objective evidence (Mukaino declaration) submitted on 2/24/09 have also been considered. Applicant contends that because his invention is being well received as a new and exciting product it must therefore be allowable. The examiner disagrees. The fact that the invention is being well received does not necessarily mean that the product is nonobvious. As noted above, applicant's prior art discloses the features of the present invention except for the radiator being moved to the rear of the cab. As it would create an imbalance to simply tack the radiator on to the rear of the cab, one of ordinary skill in the art would have shifted the cab forward to balance the machine thereby creating a cooling module recess between the tracks. It is further noted that patents are given on technological advances, not failure to appreciate economic viability. Therefore, applicant's argument that the Pack patent has been around for 9 years and no one has used it to increase visibility in bulldozers is not persuasive. Further it is not persuasive that one of ordinary skill in the art would not look to the truck art for motivation. The fact that a truck is somewhat different from a work machine would not deter a person of ordinary skill in the art from looking at the truck art for motivation because one of ordinary skill in the art would be able to reposition and rearrange certain elements to allow for the Pack teaching to be applicable to them.

Further, regarding the Mukaino declaration, it is noted that applicant repeatedly states that different design considerations need to be considered when designing the cooling module of the bulldozer compared to when designing the cooling module of the truck, however, applicant fails to point out what these design considerations might be or how they are addressed in the claims. If the only design consideration is that the cab needs to be shifted forward, it is again noted that it would be well within the skill of a vehicle engineer to do so.

Applicant further agues that the combination fails to disclose a cooling module recess behind the cab and between the tracks. As discussed above, one of ordinary skill in the art would have identified the need to correct the imbalance created by moving the cooling module to the rear of the bulldozer. To do this, they would have shifted the cab forward, thereby creating a cooling module recess. Further, it is noted, that even if a significant imbalance was not created by moving the cooling module to the rear, one of ordinary skill in the art would still have shifted the cab forward so as to protect the cooling module from damage by not allowing it to hang out over the rear edge of the tracks. By shifting the cab forwardly and making room for the cooling module, the cooling module is protected in the even that the bulldozer runs into an obstruction while moving in reverse.

Regarding applicant's argument that the combination does not specifically disclose that the rearmost end of the cooling module is disposed forward of the rear of the tank modules, it is noted that as applicant fails to disclose any specific benefits to having the tanks extend farther rearwardly than the cooling module, it appears to be a matter of obvious design choice that the tanks could extend behind the cab to whatever distance is desired. Applicant's argument that the tanks would not be shifted along with the cab is not persuasive, because Akashima adds the tanks to the combination after the cab has been shifted. Pack is used in combination to applicant's Figure 1 admitted prior art. When the cooling module is moved to the rear end of the bulldozer and the cab is shifted forward to account for the imbalance, no tanks exist. The Akashima combination is then made to include the first and second tank modules; therefore, the tanks could be placed in any desirable position.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE L. MCGOWAN whose telephone number is (571)272-5064. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571)272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas B Will/
Supervisory Patent Examiner
Art Unit 3671

JLM
March 9, 2010